

# **Lecture**

## **Module 2: Cultural Ecology**

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### **Learning Objectives**

Upon completion of this module, participants will be able to:

1. Better understand the relationship between how cultures value the lands where they live, and their understanding and knowledge of how they interact with the land.
2. Describe various ways in which cultures and their peoples affect the landscape ecologically and how the landscape affects people economically and socially.
3. Understand how political boundaries affect ecological processes and the cultures that exist within ecosystems and landscapes.

### **Lecture Outline**

Humans and the sense of place

Changes over geologic time

Fort Rock: central Oregon



Changes over historical time

Cahokia: confluence of Mississippi and Missouri Rivers

Mesa Verde: four corners region

Many dense populations of Native Americans prior to European contact

Cultural patterns provided adaptability to landscapes

Columbia River: fishing, hunting and gathering

Seasonal rounds: rotating sites

Chinook tribes downriver: calorie-rich salmon

Willamette Valley: Kalapuya and Mollala, camus as staple

Trade markets: Celilo and the Dalles on the Columbia

New innovations: cultural influences on landscapes.

Introduction of the horse by the Spanish

Aridity and grassland ecosystems

Cultural changes created by blending of traditions to create new societies

Florida Seminoles

Nuevo Mexicanos

Cultures have created political boundaries on landscapes

Treaties between the federal government and tribes

Homesteading laws, water laws condition how we perceive landscapes

Federal laws created landscapes of private property

Cultures have given us legacies of landscapes

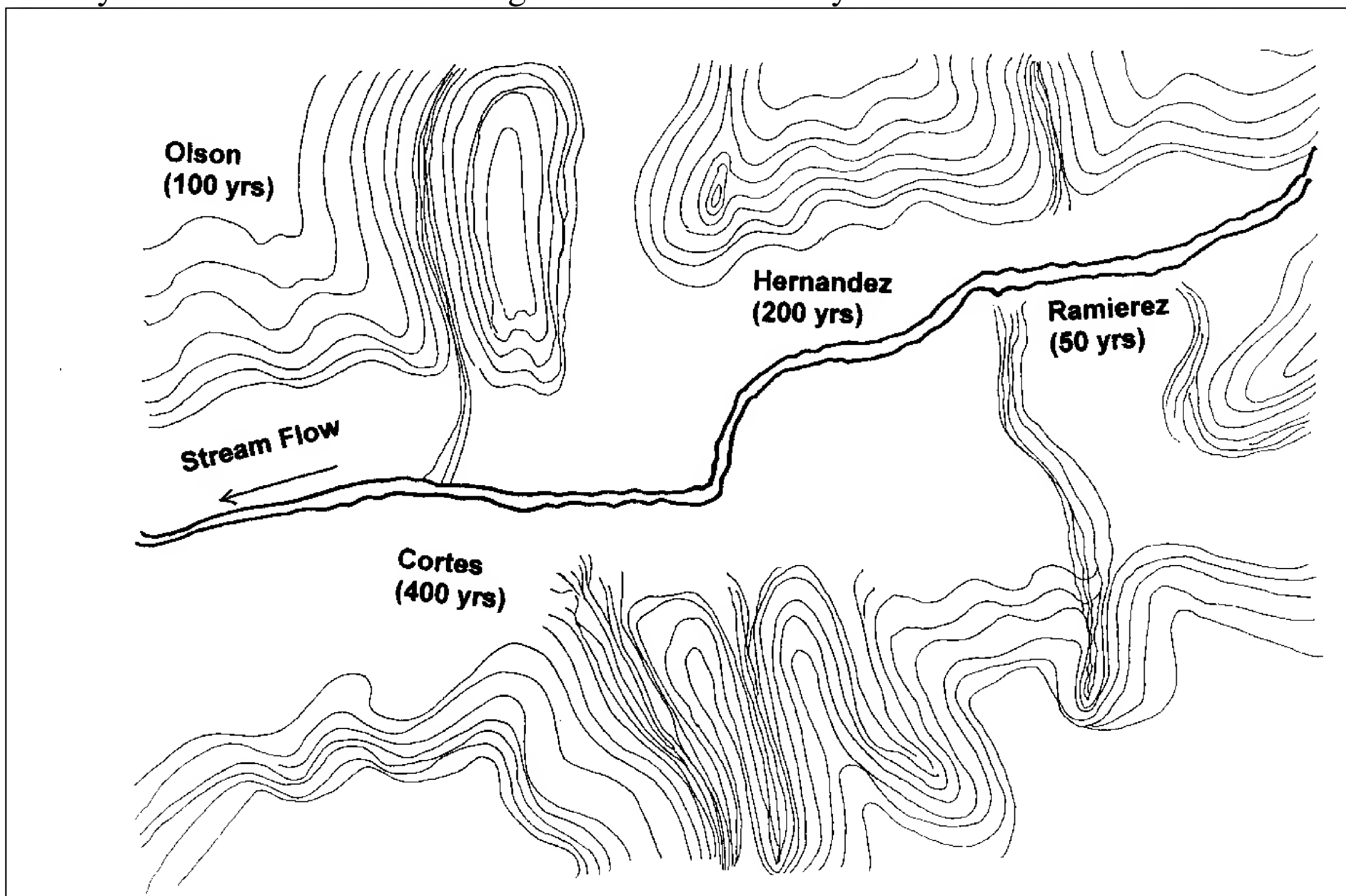




## Exercises

### *Classroom Exercise – The Culture of Water Rights in the West*

Consider the small valley with a ditch running through it, drawn on the accompanying map. Four families depend on water for their agricultural needs. The longevity of their family's residence is indicated. Your assignment is to decide how water would be distributed during a low water year when there is not enough water to meet every user's needs.



1. If you were allocating water according to appropriative law, what portion would each family receive and why?
2. How would water be allocated under an *acequia* association and why?

Discuss with your classmates what types of water rights issues are facing citizens in your area, and how these issues affect your landscape.

## **Study Questions**

1. What does “a Sense of Place” denote to you?
2. Give three examples of how culture has affected the landscape in which you live, from an ecological standpoint.
3. How does climate interact with culture to modify landscape form and function? Example: Farming cultures and arid climates, such as New Mexico.
4. How did human innovation and technology alter the natural landscapes of the Great Plains?

5. What are *acequias* and how has their use shaped the culture and the landscapes of New Mexico?
  
  
  
  
  
  
  
  
  
  
6. Cultures and societies create boundaries on landscapes. How do these arbitrary boundaries affect biological communities and biological diversity?

## References and Selected Reading

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- Rivera, J. A. 1998. Acequia culture; water, land and community in the Southwest. Albuquerque, University of New Mexico Press. 243 pp.

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## Slides used in lecture

Slide  
1

**Cultural Ecology**

**Climate interacts with culture**

- human distribution
- cultural patterns

**Technology**

- determines scope and magnitude of cultural impact

**Blended cultures**

- create new patterns

Understanding the Landscape

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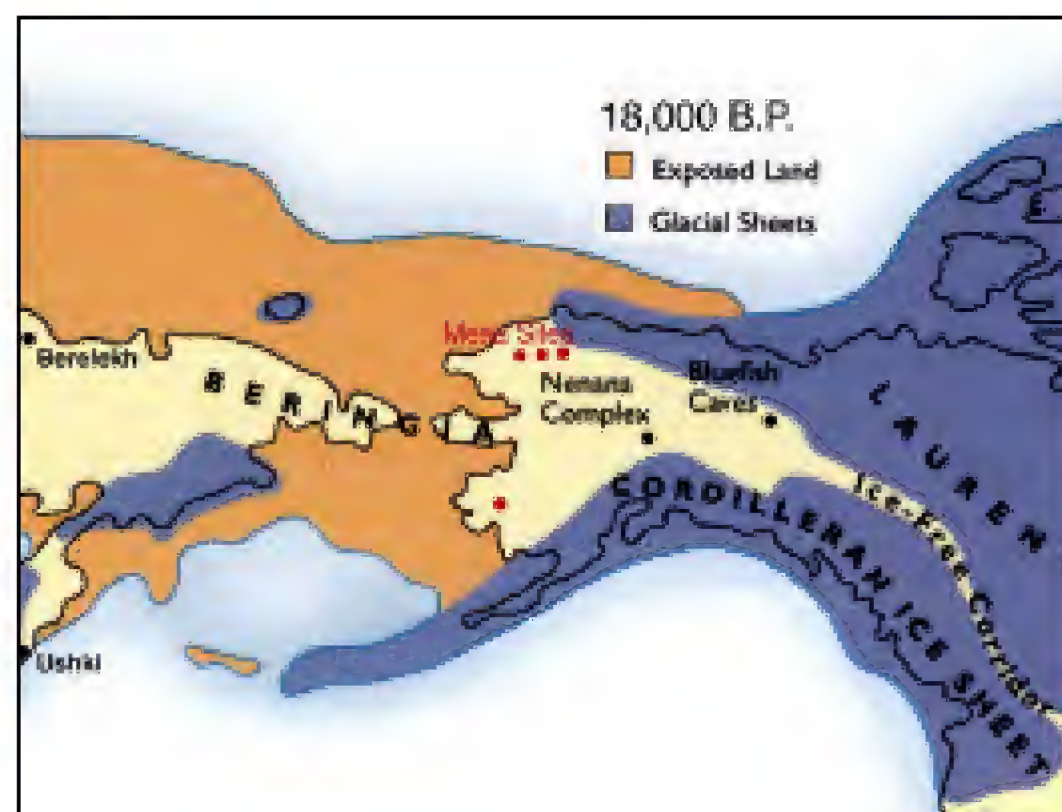
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**Review**

What characterizes the biodiversity of the Great Plains?

What was the lifestyle of early Native Americans on the Great Plains? On what resources did they depend?

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**Acequias...**

**Communal ditch systems**

1. Provide water to subsistence farmers
2. Often in unincorporated areas
3. Only form of government in these areas

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**Cultures create political boundaries on landscapes**

- Treaties:
  - Spanish acequias
  - Indian rights to reservations
  - Indian rights to ceded lands
- Homesteading laws
- Water laws
- Federal Trust Lands: forests, parks
- Communal and private property

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